Despite unchanged attitudes, the majority of the recalcitrant tuberculous patients discharged from the California Medical Facility during a 6-year period generally remained under medical supervision, and the disease of more than half of them became inactive or probably inactive.

Followup of Tuberculous Recalcitrants

EDWARD KUPKA, M.D., and DOROTHY L. GIBSON, P.H.N.

RIOR to 1949 local health departments in California, except in Los Angeles County (1), frequently had difficulty in enforcing the isolation of infectious tuberculous patients who refused to cooperate. It was usually difficult to make sure that home isolation was being maintained; few county hospitals had facilities for escapeproof custody; and local jails generally were unsuitable for the detention of a person with infectious tuberculosis. Although the uncooperative tuberculous were a very small proportion of the total number of known patients, each was an unquestioned hazard to community and family and absorbed a disproportionate amount of the time and effort of health department workers.

Enactment of specific laws dealing with tuberculosis by the California Legislature in 1949 encouraged new approaches to the difficulties. These laws designated the disease as a public health menace; defined in detail the responsibilities of the health officer and other law enforcement officials in tuberculosis control; and specified the powers and duties of the health officer in enforcing isolation of infectious cases (2).

The legislation empowered the California State Department of Public Health to establish a hospital unit for recalcitrant patients to which violators of isolation could be sent by

Dr. Kupka is chief, and Mrs. Gibson, the nursing consultant of the bureau of tuberculosis control, California State Department of Public Health, Berkeley.

the courts. The law also protected tuberculosis patients against indiscriminate incarceration by stipulating that the health officer must be ready to present evidence at court to verify the hazard of the individual's disease to the community.

With the cooperation of the California State Department of Corrections, a 20-bed unit with both hospital and prison characteristics was established in 1950 for male tuberculous recalcitrants. First located in temporary quarters at Terminal Island near Los Angeles, the unit was moved in 1954 to the newly constructed California Medical Facility near Vacaville in northern California. Meanwhile, as use of the facility increased, the number of beds available was increased to 50, with an average occupancy of 40.

The California Medical Facility was established to care for male felons from the State prisons who require special treatment for physical or psychological illnesses, including tuberculosis (3). The tuberculous felons and recalcitrant tuberculous patients sentenced by the courts for the specific misdemeanor of violation of isolation are cared for in the same section of the hospital. Medical and nursing services are provided by the institution staff. Individual and group psychotherapy, as well as occupational and recreational therapy, are available on a voluntary basis when permitted by the clinical status of the patient.

Although the local health officers now have a legal weapon of great utility, the law has been used conservatively. Annually, only about 1 in

500 patients under health department supervision has been sentenced to the facility. Education and persuasion are tried repeatedly before the health officer turns to legal procedures. Court action is almost always against an offender who has repeatedly disregarded the most elementary protective practices and violated isolation orders. Local judges have seldom failed to act upon the health department's complaint in such a situation. If the trial does not result in incarceration, the court at least puts the offender on probation, on condition that he return to the sanatorium and remain there until dismissed medically.

The California State Department of Public Health screens admissions to the medical facility, assists in establishing general treatment policies of the tuberculosis section, and sometimes participates in the legal processes. At first the screening was necessary to keep the number admitted within the unit's capacity, but it also has enabled the department to request reconsideration of an occasional commitment when the evidence of contagiousness was out of date or not convincing. In earlier years it gave the department an opportunity to discuss the legal action with the local judge, sometimes voiding an improper commitment.

Between December 1950 and December 31, 1956, 211 recalcitrant tuberculous patients were admitted to the California Medical Facility. What happened to these men? How many have been lost to observation? How many are still alive? Over several years, has the disease of most of them improved? Are they currently under supervision or care? Have their attitudes changed?

Since the State bureau of tuberculosis control keeps only an admission and discharge file, limited to basic identifying, medical, and legal data, followup information was obtained from questionnaires sent to the 37 local health jurisdictions from which one or more persons had been sent to the facility for recalcitrants. Name, age at admission, facility file number, dates of admission and discharge, and length of sentence of each of the patients were abstracted from the basic file and typed on a questionnaire before it was sent to the appropriate health department. The local health departments were asked to add from their records of the patients

the last-known status of disease, interval since last examination, type of present medical supervision, admissions to other tuberculosis hospitals since discharge from the facility, marital status at time of first admission, and attitude since discharge.

Twenty-eight of the 211 patients were in the California Medical Facility on December 31, 1956, and were not included in the study. A total of 183 questionnaires were sent, and all but 2 were completed and returned. This excellent response may be interpreted as reflecting the strong interest of the local health departments in the legal detention program.

The responses indicated that 22 of the 181 were known to be dead; 6 died while in the facility; 16, after discharge. The remaining 159 patients constitute the group analyzed in tables 1-4.

About three-quarters (131) of the patients were in the age group 25-50 years. In this sample few young adults and oldsters were recalcitrants. The age of patients at first admission to the facility was as follows:

Age group	
(years)	Number
Under 20	4
20-24	6
25-29	26
30-34	27
35-39	21
40-44	25
45-49	32
50-54	15
55-59	10
60-64	5
65 and over	8
Not stated	2
Total	181

Negroes and Mexican-Americans each comprised 13 percent of the group; there were no Chinese or Japanese.

Ethnic group	Number	Percent
White	125	70
Negro	_ 25	13
Mexican-American	_ 24	13
Indian		1
Filipino	. 1	} 4
Not stated	_ 3)
\		
Total	_ 181	100

The marital status of the group at time of admission was in marked contrast to that of the male adult population in general. At the time of first admission, only 42, or 23.2 percent, were married and 89, or 49.2 percent, were single, separated, or divorced. The status of 50, or 27.6 percent, was not known or not stated.

As expected, the most populous jurisdictions in the State sent the most patients to the facility. However, 37 of the 47 full-time health jurisdictions in California have sent a patient to the facility on at least one occasion. Such wide acceptance reflects the need for this kind of institutionalization and also the willingness of the local health officers to utilize this legal resource after other means of achieving control of the infectious person have proved futile. Since Los Angeles County operates an excellent comparable sheriff's facility at Mira Loma, the health departments in that county have usually sent only recidivists or individuals with significant prison records to the State facility.

The following observations concern only the 159 patients who were known or presumed to be living at the time the data were gathered.

Table 1 indicates the strong possibility of satisfactory outcome of the disease even in tuberculous patients of the type covered by this report; the disease status of 91, or 57 percent, was known to be inactive or probably inactive.

After discharge from the facility, some of the

Table 1. Last-known status of disease of recalcitrant tuberculous patients,¹ California, 1950–56

Last-known status of disease	Length of time prior to Dec. 31, 1956, that status was known.				
	Total	0–6 mos.	6-12 mos.	More than 12 mos.	
Total	159	94	25	40	
Active Probably active	53 4	33 3	8	12 1	
InactiveProbably inactive	85 6	48 4	16 1	21 1	
No data	11	6	0	5	

¹ Known or assumed to be living on Dec. 31, 1956.

individuals were lost to observation. Since the status of 13 of the active and probably active group had not been checked for a year or more and 11 had dropped out of sight so that no data were available, it is clear, but not surprising, that the patients in the group continue to present caseholding problems (table 1).

Table 2. Attitude after discharge of recalcitrant tuberculous patients, California, 1950–56

	Last-known status of disease						
Patient's attitude	Total	Ac- tive	Prob- ably active	In-	Prob- ably in- active	No data	
Total	159	53	4	85	6	11	
ImprovedUnimproved:	38	12	1	23	1	1	
Same Worse Unknown	85 2 34	37 1 3	$\begin{array}{c} 2 \\ 0 \\ 1 \end{array}$	41 1 20	3 0 2	2 0 8	

Attitudes of the patients toward their disease, judged in the broadest terms and, of course, highly subjectively, are shown in table 2. When these data are compared with those in table 1, it is evident that improvement in the status of the patient's disease had occurred in many cases without a corresponding change in the patient's attitude. Thus, although 72 percent of the patients had been examined within 12 months (table 3), only 24 percent were reported as having an improved attitude toward the care of their disease.

The majority of the surviving group were not living with family, and many of them continued to lead a nomadic existence. From information volunteered on the questionnaires, it was evident that many of them were alcoholics. In members of such a group a change in attitude in the direction of cooperation with a public agency is perhaps not to be expected. Nevertheless, for these patients legal isolation accomplished at least two important and previously unattainable objectives. First, it reduced the length of time the patients could spread tuberculosis to others, and second, the medical and surgical therapy given the patients led to eventual arrestment of disease in a considerable number.

Table 3. Length of time since last examination of recalcitrant tuberculous patients, California, 1950–56

Last known status of disease	Total	0–6 mos.	6–12 mos.	More than 12 mos.	Time not stated
Total: Number Percent	159 100	99 63	15 9	31 19	14
ActiveProbably active	53 4	33 3	5 0	9	6 0
Inactive Probably inactive	85 6	55 4	10 0	16 1	4
Activity undetermined or not stated	11	4	0	, 4	3

Patients discharged from the recalcitrant unit are routinely transported to their own health jurisdictions by the sheriff's department of that county. The discharge occurs on the last day of the sentence, that is, 6 or 12 months after admission, depending on whether the patient is serving a first or subsequent sentence. If further treatment is needed, and it often is, the patients are immediately admitted to a tuberculosis hospital, usually the one operated by the home county.

Table 4 shows 245 later admissions to any tuberculosis institution for the group. Ex-

Table 4. Admissions 1 to tuberculosis hospitals after discharge from California Medical Facility among 159 recalcitrant tuberculous patients, California, 1950–56

Type of hospital	Number of ad- missions	Subsequent departures AMA ² or AWOL		
· ·		Number	Percent	
Total admissions_	245	92	38	
County tuberculosis facilities	164 39 11 8	64 23 5 0	39 59 45	

¹ Includes readmissions.

cluding 23 readmissions to the recalcitrant facility, which is escapeproof, the remaining 222 admissions eventuated in 92, or 41 percent, subsequent unauthorized departures, a further verification of the failure to change attitudes. Of the 23 readmissions to the California Medical Facility, 4 were accounted for by 2 patients, who each had been sentenced to 3 separate terms in the prison ward.

This is to be considered as a progress report and from it no solid evaluation of the impact of this type of program upon the control of tuberculosis can be made. It would be useful to compare a group of recalcitrants who were not incarcerated and to note any differences in the behavior of their disease. Even more valuable would be a comparison between the number of new secondary cases attributable to contact with members of a nonincarcerated group and the secondary cases attributable to a group such as the one described in this paper. However, the excessive mobility, evasiveness, and social instability of the patients make such long-term studies extremely difficult.

Summary

Sentencing recalcitrant tuberculous patients to a special State facility by court action has proved practicable and useful in California. Use of this legal procedure not only has decreased the hazard of transmission of disease but also has created an opportunity for the commencement or continuation of much needed treatment for the patients.

Although the attitude of the majority of patients did not improve as a result of their incarceration, most of them remained under some type of medical supervision following discharge, and three-quarters had been examined during the 12 months preceding receipt of the questionnaire sent to the local health departments. However, many evaded regular medical supervision, especially after 1 year; one out of eight patients had to be readmitted to the State facility; and a third of those subsequently admitted to local tuberculosis hospitals again resorted to unapproved self-discharge. Nevertheless, the data indicate that by the time of the study more than half of the patients had

² Against medical advice.

reached the classification of inactive or probably inactive.

The majority of health jurisdictions in the State have sent at least 1 patient to the facility, which would indicate that it is meeting a real need, but the small total (211 in 6 years) indicates that it is not being used indiscriminately or excessively.

REFERENCES

- (1) Telford, P. K., and Bogen, E.: Compulsory isolalation for tuberculosis. Am. Rev. Tuberc. 45: 288-291 (1942).
- (2) Kupka, E., and King, M. R.: Enforced legal işolation of tuberculous patients. Pub. Health Rep. 69: 351–359, April 1954.
- (3) McGee, R. A.: California builds a new prison system. State Government 25: 143-146, July 1952.

films

Recognition of Leprosy

16-mm. motion picture, color, sound, 13 minutes, 1959, not cleared for television. (Order No. M-374.)

Audience: Practicing physicians and medical students.

The clinical manifestations of leprosy are depicted as they appear in patients of the Public Health Service Hospital at Carville, La. Techniques of taking and staining skin scrapings to demonstrate the etiological agent, *Mycobacterium leprae*, and of taking skin biopsies to demonstrate pathology of peripheral nerves are shown. Diagnostic procedures are included.



The film is not for sale. It is available on short-term loan (United States only) from the Communicable Disease Center, Public Health Service, Post Office Box 185, Chamblee, Ga.

Staphylococcal Disease: Manifestations, Prevention, and Control

35-mm. filmstrip, color, silent, 36 frames, cleared for television, 1959 (Order No. F-343).

Audience: Doctors, nurses, hospital personnel.



Various clinical manifestations of hospital-acquired staphylococcal disease, how it is spread, and some of the techniques and methods useful in the control of infections are depicted in stylized drawings.

Included with each filmstrip is a "kit" which contains an instructor's guide, bibliographies, hospital checklist, suggestions and a sample form for telephone surveys, and pertinent reprints. The requestor may keep the kit, whether the filmstrip is borrowed or purchased.

For short-term loan, in the United States only, the filmstrip is available from the Communicable Disease Center, Public Health Service, Post Office Box 185, Chamblee, Ga.

It can be purchased at approximately \$5.10 f.o.b. New York (10

percent discount for nonprofit organizations) from United World Films, Inc., 1445 Park Ave., New York 29, N.Y.

Aseptic Technique— Handwashing

16-mm. motion picture, color, sound, 3½ minutes, cleared for television, 1959 (Order No. M-375).

Audience: Nurses, student nurses, medical students, physicians.

This film shows a method of handwashing, using cake or liquid soap, that may be used in the hospital and modified for use in the public health field.

It is available, in the United States only, on short-term loan from the Communicable Disease Center, Public Health Service, Post Office Box 185, Chamblee, Ga.

Prints can be purchased, at approximately \$28 f.o.b. New York (10 percent discount for nonprofit organizations), from United World Films, Inc., 1445 Park Ave., New York 29, N.Y.

